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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,076	08/19/2003	Toshiharu Ishida	116692004100	3052

25227 7590 06/18/2009

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EXAMINER	
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ART UNIT	PAPER NUMBER
3687	

MAIL DATE	DELIVERY MODE
06/18/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/643,076	ISHIDA ET AL.	
	Examiner	Art Unit	
	Ashford S. Hayles	3687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Amendment received on October 27, 2008 has been acknowledged. Claims 1, 6, and 11 has been amended. Therefore, claims 1-15 are pending.

Response to Amendment

2. Applicant's amendments are sufficient to overcome previous 35 USC 112 2nd rejections as set forth in the previous office action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawashima et al. (#5,168,445) in view of Kagami et al. (#5,128,861) further in view of Kakouros et al. (#7,249,068).**

As per claims 1, 6 and 11 Kawashima et al. discloses a computer readable medium storing instructions for performing an inventory management method/apparatus/recording medium that calculates a supplement amount of inventory at a specific day (Column 1, lines 7-10 discusses the invention relates to a system of ordering goods at a retail shop and more particularly to an automatic ordering system suitable for ordering work and inventory control of goods distributed daily, See also Figure 1), the method comprises:

a step for calculating a first sales plan amount (See Figure 1, Sales Volume Predictor 3 develops the first sales plan) from a standard day prior to said specific day based on sales performance data (Figure 1, POS Data 11 provides selling status of individual goods or performance data for a good and is fed into the sales volume predictor 3) comprising sales performance for a first period between the standard day and the specific day, and sales plan data a sales plan amount for the period(Column 7, lines 47-48 discusses inputs from the variable condition setter 2 for a period of time is fed into the sales volume predictor and is used to deliver a sales plan, thus providing the sales volume predictor 3 with a sales plan and POS data, which the Examiner is construing as sales performance data, for a period of time to determine a first sales plan amount, which is outputted as Predictive Data 12);

a step for predicting a first inventory amount (See Figure 1, Ordering Amount Calculator 4) at said specific day based on said first sales plan amount (See Figure 1, Predictive Data 12), a second inventory amount (See Figure 1, Stock Data 13) at said standard day (Column 7, lines 48-52 discuss a condition diagnostic unit may calculate the amount of change of selling on the basis of the past contents of the POS data to automatically correct safety stock volume of the stock data) and warehousing amount from said standard day to said specific day (Column 4, lines 46-49 discusses ordering data 14 ordered on the past days (24-th and 25-th days) representative of the delivery amount for the 26-th and 27-th days).

a step for predicting a second sales plan amount of a second period ranging from said specific day through a number of following days required to deliver a merchandise,

based on said first sales plan amount (Figure 13(b) depict an ordering amount calculating formula, which uses the sales volume amount or first sales plan for the named day to the specific day, as well as a period of time from the named day through the number of days required for delivery as depicted in Figure 13(a)), but fails to explicitly disclose a step for calculating a sales fluctuation range amount by multiplying said second sales plan amount by a predetermined fluctuation range ratio, wherein the fluctuation range ratio is a pre- calculated value representing fluctuation of a past performance amount relative to a corresponding expected amount, a step for calculating a lower limit inventory amount of said specific day as a sum of based on said second sales plan amount and a standard value of ordinary inventory, wherein the standard value of ordinary inventory is based on said sales fluctuation range amount; and

Both Kawashima and Kagami et al. are in the same field of inventory management systems, Kagami et al. teaches a method of calculating a sales fluctuation range amount by multiplying said second sales plan amount by a predetermined fluctuation range ratio, wherein the fluctuation range ratio is a pre- calculated value representing fluctuation of a past performance amount relative to a corresponding expected amount (Col.5, lines 19-20 discuss a change of sales is forecasted by use of a sales change model pattern and Col.4, lines 51-59 discusses a sales change model pattern which uses a ratio of sales to planned sales in total, which represents a past performance and an expected amount, thus calculating a sales fluctuation amount).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the inventory management system of Kawashima et al., to include the ability to calculate

a sales change range as taught by Kagami et al. in order to forecast a specific character of sales peculiar to the goods or a sales plan (Col.4, lines 44-46).

Kawashima discloses forecasting a volume of sales occurring before the delivery lead time and determining the amount of orders (ordered goods) by taking into account the volume of inventories at an ordering time point and the safe total stock to prevent out of stock (Col.2, lines 41-46) and Kagami discloses a countermeasure such as an inventory adjustment or additional order (Col.5, lines 23-25), as a motivation to combine, however the Kawashima-Kagami combination fails to disclose a step for calculating a supplement amount as a difference between the lower limit inventory amount of said specific day and said first inventory amount.

Kakouros teaches a step for calculating a lower limit inventory amount of said specific day as a sum a standard value of lump-sum inventory and a standard value of ordinary inventory, wherein the standard value of ordinary inventory is calculated as a sum of at least said sales fluctuation range amount and said sales plan amount(Col.5, lines 45-48 the total amount of safety stock needed to cover the variability in end customer demand over the exposure period with a specified service level is represented by $q_{(MAX)}$, where the customer demand is construed as the second sales plan amount which includes an estimated mean lead time a_d and estimated lead time deviation μ_L for a review period R, and service level α is a particular period defined as the probability that the product demand in that period plus the unsatisfied product demand in previous periods or sales fluctuations. See equation (1)).

Kakouros further teaches a step for calculating a supplement amount as a difference between the lower limit inventory amount of said specific day and said first inventory amount (Figure 9, Step 90, determines an amount to be ordered from a spot market supply to fulfill a product level needed to meet actual demand above optimal safety stock level and within target service level, where the maximum safety stock level is reduced by the optimal quantity of products to be supplied by spot market sources, which is dependant on demand and market conditions).

Kakouros et al. discloses a step for calculating a lower limit inventory amount. However, Kakouros et al. does not expressly disclose a step for calculating a lower limit amount comprising a sum a standard value of lump-sum inventory and a standard value of ordinary inventory, wherein the standard value of ordinary inventory is calculated as a sum of at least said sales fluctuation range amount and said sales plan amount.

However, it would have been obvious to one of ordinary skill in the art to have modified the method of Kakouros et al. to calculate the lower limit amount using any of a plurality of ways, because such modification would not have otherwise affected the method of Kakouros et al. and would have merely represented one of numerous steps that the skilled artisan would have found obvious for the purposes already disclosed by Kakouros et al. Additionally, applicant has not persuasively demonstrated the criticality of providing this calculating step versus the calculating step disclosed by Kakouros et al.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the Kawashima-Kagami et al. combination to include the ability to determine a

maximum safety stock amount as well as an inventory adjustment ordering amount as taught by Kakouros et al. in order to cover uncertainty in future end customer demand with a safety stock level that is less than the safety stock level required to cover expected demand with a desired service level when supply is available only from non-spot market sources (Abstract).

As per claims 2, 7, and 12, Kawashima et al. discloses the computer readable medium/apparatus/recording medium wherein said step for calculating the first sales plan amount comprises:

a step for calculating a sales performance ratio of each operating day based on said sales performance data (Column 4, lines 20-25 discuss a sales volumes which occurred previously on certain days, each being the same day of the week ex. Thursday, as that of the day for which the sales volume is predicted, i.e., the 28-th day, is averaged in respect of each item of goods);

a step for calculating an expected sales performance ratio of each operating day after the standard day (Column 4, lines 12-20 discuss a prediction is based on the assumption that the date the date named is the 26-th day of the month and goods ordered on the 26-th day are scheduled to be delivered two days later i.e., on the 28-th day, thereby predicting on the named 26-th day the volume of sales expected to occur on the 28-th day) based on said sales performance ratio of each operating day; and a step for calculating a sales plan amount until said specific day based on said expected sales performance ratio of each operating day after the standard day (Column 4, lines 14-19, refers to FIG. 5, sales volumes, generally indicated by 503, which

previously occurred on certain days, each being the same day of the week, are averaged in respect of an item of B chocolate. For example, the thus averaged predictive value is assumed to be "200").

As per claims 3, 8, and 13, Kawashima et al. discloses the computer readable medium /apparatus/recording medium, wherein said warehousing amount is calculated based on said supplement amount of said standard day to the day before the specific day (Column 2, lines 41-46 discuss a method necessary to forecast or predict the volume of sales occurring before the delivery lead time and determine the amount of orders or ordered goods, by taking into account the volume of inventories at an ordering time point and the safe total stock which is set to prevent out-of-stock).

As per claims 4, 9 and 14, Kawashima et al. discloses the computer readable medium /apparatus/recording medium, wherein said specific day is a day after the soonest day possible to supplement the inventory, when there is a new order (Column 2, lines 56-57 discuss a method that the ordering work is performed once every day in accordance with a daily ordering schedule and that ordered goods are delivered two days after an ordering day the day after tomorrow).

As per claims 5, 10 and 15, Kawashima et al. discloses the computer readable medium/apparatus/recording medium wherein said computer further comprises a step for respectively calculating a retrospective day that goes back a period (Column 7, lines 48-52 discuss a method wherein the condition diagnostic unit may calculate the amount of change of selling on the basis of the past contents of the POS data to automatically correct safety stock volume of the stock data) which is required to

deliver the merchandise from the factory, before a delivery day of each of one or more blanket orders, (Column 7, line 68 discuss a method where a fixed quantity ordering mode may be adopted wherein the order amount is fixed, a blanket order is construed as a fixed quantity) and said step for calculating said lower limit inventory amount, (Column 8, lines 28-30 discuss where a selling status and stock status can automatically be diagnosed in respect of individual goods groups and individual goods, the Examiner is construing that the process of automatically diagnosing the selling and stock status, a person having ordinary skill in the art can derive a lower limit inventory amount) includes calculating with said sales fluctuation range and said second sales plan amount the lower limit inventory amount at said specific day (Column 8, lines 22-24 discuss the amount of change of selling of individual goods can automatically be reflected on the order amount), based on each order amount and said retrospective day of said one or more blanket orders (Column 8, lines 1-4 discuss a mode wherein the lead time is different for individual items of goods or individual seasons, where the lead time is construed as the retrospective day).

Response to Arguments

5. Applicant's arguments filed March 27, 2009 have been fully considered but they are not persuasive.

Applicant argues: "...Kakouros's equation 1 does not make any distinction between lump- sum inventory and ordinary inventory. Thus, Kakouros fails to cure the defects in Kawashima and Kagami.

Examiner respectfully disagrees. Kakouros et al. discloses a step for calculating a lower limit inventory amount. However, Kakouros et al. does not expressly disclose a step for calculating a lower limit amount comprising a sum a standard value of lump-sum inventory and a standard value of ordinary inventory, wherein the standard value of ordinary inventory is calculated as a sum of at least said sales fluctuation range amount and said sales plan amount.

However, it would have been obvious to one of ordinary skill in the art to have modified the method of Kakouros et al. to calculate the lower limit amount using any of a plurality of ways, because such modification would not have otherwise affected the method of Kakouros et al. and would have merely represented one of numerous steps that the skilled artisan would have found obvious for the purposes already disclosed by Kakouros et al. Additionally, applicant has not persuasively demonstrated the criticality of providing this calculating step versus the calculating step disclosed by Kakouros et al.

Applicant argues: "...Kawashima fails to disclose or suggest a combination of elements in which "a first sales plan amount" is calculated using both "sales plan data" and "sales performance data" as claimed..."

Examiner respectfully disagrees. As cited the reference teaches all elements of the claimed invention concerning a first sales plan amount which is calculated using data received from the POS data which is the selling data of goods and stock data, which will ultimately give a user the sales performance as claimed by the applicant. The reference also teaches when calculating a sales plan that the variable condition data is

used to determine the conditions for a few days which are necessary for predicting the volume of sales, which is basically planning for an anticipated sales amount. The combination of the two forms of data, as taught by Kawashima et al. allows for one of ordinary skill in the art to recreate the applicant's claimed invention.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashford S. Hayles whose telephone number is 571-270-5106. The examiner can normally be reached on Monday thru Thursday 8:30 to 4:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Gart can be reached on (571) 272-3955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elaine Gort/
Primary Examiner, Art Unit 3687

/A. S. H./
Examiner, Art Unit 3687